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(54) Title: POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS

(57) Abstract: The invention relates to plant transcription factor polypeptides, polynucleotides that encode them, homologs from a variety of plant species, and methods of using the polynucleotides and polypeptides to produce transgenic plants having advantageous properties compared to a reference plant. Sequence information related to these polynucleotides and polypeptides can also be used in bioinformatic search methods and is also disclosed.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/30292

According to International Patent Classification (PC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S.: 435/320.1, 419, 468; 536/23.6; 800/278.298 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages X US 5,994,622 A (IOFUKU et al.) 30 November 1999 (30.11.1999), column 13 line 55 - column 20 line 32, column 21 - column 30. X US 2.002/0076775 A1 (CRANE et al.) 20 June 2002 (20.06.2002), page 7 [0088], page 23 [00.52] - page 24 [00.52] - page 24 [00.52] - page 25 [00.39], pages 29-63. X Database GenBank on STIC, National Center for Biotechnology Information, (Bethesda, MD, USA), Accession No. AF426252, KUSHNIR et al., Gene Sequence, 08 November 2001. X Database GenBank on STIC, National Center for Biotechnology Information, (Bethesda, MD, USA), Accession No. AR091882, JOFUKU et al., 07 September 2000. * Special categories of cited documents: **A* document defining the general state of the art which is not considered to be of particular relevance of particular relevance to cited documents: **A* document defining the general state of the art which is not considered to be or particular relevance to cited documents to confidered to be considered to considered to be inclined to the conditional to the confidered to be considered to considered to be considered to considered to considered to be considered to considered to considered to be considered to considered to considered to considered to seven the considered to considered to considered to considere	A. CLASSIFICATION OF SUBJECT MATTER				
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"A" document defining the general state of the art which is not considered to be principle or theory underlying the invention of particular relevance "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	Special categories of cited documents:				
"E" earlier application or patent published on or after the international filing date considered novel or cannot be considered to involve an inventive step when the document is taken alone	document defining the general state of the art which is not considered to be principle or theory underlying the invention of particular relevance				
"L" document which may throw doubts on priority claim(s) or which is cited to		considered novel or cannot be considered to involve an inventive step			
establish the publication date of another citation or other special reason (as "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination	establish the publication date of another citation or other special reason (as	considered to involve an inventive step	when the document is		
"O" document referring to an oral disclosure, use, exhibition or other means being obvious to a person skilled in the art	"O" document referring to an oral disclosure, use, exhibition or other means	being obvious to a person skilled in the	e art		
"P" document published prior to the international filing date but later than the "&" document member of the same patent family priority date claimed		"&" document member of the same patent	family		
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P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230 Telephone No. (703) 308-0196					

Form PCT/ISA/210 (second sheet) (July 1998)

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INTERNATIONAL SEARCH REPORT	
- CONTRACTOR AND	CICILIC
BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LA This application contains the following inventions or groups of inventions which	ore not so linked as to form a single general
inventive concept under PCT Rule 13.1. In order for all inventions to be examinated inventions to be examinated in the concept under PCT Rule 13.1.	ned the appropriate additional examination fees must
be paid.	mod, and appropriate documents
[
Groups I-MMCXXIII, claim(s) 1-20, drawn to a recombinant polynucleotide, a	transgenic plant, and a method for producing a
transgenic plant to the extent that each claim is directed to a particular nucleotic	de sequence corresponding to a particular group of
invention. Groups I-MMCXXIII correspond to the recited individual nucleotide	sequences, in their order of presentation. e.g. Group I
corresponds to claims 1-12 and 20 directed to SEQ ID NO:1, Group II corresponds	nds to claims 1-12 and 20 directed to SEQ ID NO:3,
etc.	
The inventions listed as Groups I-MMCXXIII do not relate to a single general in	eventive concept under PCT Rule 13.1 because, under
PCT Rule 13.2, they lack the same or corresponding special technical features f	or the following reasons:
1 C1 Kille 15.2; they hack the bland of corresponding special treatment and	
The technical feature linking Groups I-MMCXXIII is a nucleotide sequence enc	oding a plant transcription factor. However, a
nucleotide sequence encoding a plant transcription factor is disclosed by STOCH	KINGER et al. (Proc. Natl. Acad. Sci. USA, February
1997, Vol. 94, pages 1035-1040), and therefore does not constitute a special tec	chnical feature as defined by PCT Rule 13.2, because
it does not define a contribution over the prior art. The special technical feature	of each group of invention is the district fuciele acid
sequence that defines each invention.	
Continuation of B. FIELDS SEARCHED Item 3:	
STN (agricola, biosis, biotechno, caba, caplus, medline, uspatfull): inventor na	mes, plant, transgenic, transcription factor, AP2,
WRKY51; STIC sequence search SEQ ID NOS: 1, 2, 193, 194	

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/30292

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of Item 1 of Item 1)			
This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:			
1. Claim Nos.: because they relate to subject matter not required to be searched by this Authority, namely:			
Claim Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:			
3. Claim Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).			
Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)			
This International Searching Authority found multiple inventions in this international application, as follows: Please See Continuation Sheet			
 As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: 1-14 and 16, directed to SEQ III NOS:1, 2, 193, 194 			
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:			
Remark on Protest The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.			

Form PCT/ISA/210 (continuation of first sheet(1)) (July 1998)